

EXHIBIT 11

**UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA**

ORACLE AMERICA, INC.,

Plaintiff,

v.

GOOGLE INC.,

Defendant.

Case 3:10-cv-03561-WHA

EXPERT REPORT OF DR OLIVIER TOUBIA

February 29, 2016

affected developers in 2007 to 2009. Therefore, this survey cannot reliably be used to draw conclusions about the importance of factors considered by developers at that time.

A. Respondents are Unlikely to Accurately Recall Factors That Influenced Decisions Made up to Eight Years Prior to the Survey

21. A significant period of time has passed between the early years of Android and Dr. Simonson's survey. Research shows that survey respondents cannot remember essential facts from personal events 20 percent of the time after only a year, and 60 percent of the time after five years.³³ This evidence suggests that Dr. Simonson's respondents would be unlikely to recall decision-making factors from up to eight years prior to when his survey was conducted. Any attempt to explore these decision-making factors should have provided the context describing Android's early years.
22. The Simonson survey primarily asks respondents about their current decision-making factors, and includes only two sets of questions that could provide relevant information on the time period at issue (see Exhibit 1). These two sets of questions depend on respondents' ability to recall the factors and environment that influenced their decisions to "start offering" applications for the Android (or another) platform.³⁴ Both sets of questions therefore are likely to yield invalid answers because respondents generally have difficulties to recall events or details of their past precisely (or at all). Because the Simonson survey provides no means to stimulate recall, and because the relevant events in this matter took place several years ago, the validity of Dr. Simonson's survey results is likely very limited due to recall issues.
23. Question Q5 asks respondents to recall the year when they "start[ed] offering applications" for Android and/or another mobile platform. Question Q6 asks respondents to recall up to

³³ Norman M. Bradburn, Lance J. Rips, and Steven K. Shevell, "Answering Autobiographical Questions: The Impact of Memory and Inference on Surveys," *Science*, New Series, Vol. 236, No. 4798, 1987, pp. 157-161 at p. 158.

³⁴ Simonson Exhibit E2, pp. 4-5.

eight “factors or considerations” that led to their decision to develop applications for these respective platforms.³⁵

24. Setting aside the problems with Dr. Simonson’s survey instrument, a closer review of his data suggests that only a small share of respondents in his sample were potentially able to accurately answer questions about their decisions to develop for Android during the platform’s early years. In fact, only 18 out of the 116 Android developers in Dr. Simonson’s sample (16 percent) reported to have started offering applications for Android between 2007 and 2009. Therefore, the majority of Dr. Simonson’s respondents appear not to have experienced the Android development environment during its early years. Any answers provided by these respondents do not allow for valid conclusions about the factors and considerations driving developers’ decisions during the early years of Android.
25. Despite being familiar with the academic literature on recall³⁶ and the deterioration of recall over time, Dr. Simonson does not facilitate recall, therefore additionally limiting the validity of respondents’ answers. Dr. Simonson has commented on issues related to recall in his own academic work.³⁷ Dr. Roger Tourangeau, a widely-recognized survey methodologist, has provided guidelines on how to stimulate and improve recall of previous thoughts, beliefs, or attitudes.^{38,39} For example, questions guiding respondents from high-level topics into more

³⁵ Simonson Exhibit E2, pp. 4-5.

³⁶ It is well understood that memory tends to fade as time progresses: “[b]y far the best-attested fact about autobiographical memory is that the longer the interval between the time of the event and the time of the interview, the less likely that a person will remember it.” Roger Tourangeau, Lance J. Rips, and Kenneth Rasinski, *The Psychology of Survey Response*, Cambridge University Press: 2000, p. 82-3, references omitted.

³⁷ Dr. Simonson has studied recall and the factors that influence it, including the length of time between an event and evaluation of that event: “[i]t seems likely that greater time between outcomes and evaluation reduces people’s ability and motivation to recall the series.” Joel Huber, John Lynch, Kim Corfman, Jack Feldman, Morris Holbrook, Donald Lehmann, Bertrand Munier, David Schkade, and Itamar Simonson, “Thinking About Values in Prospect and Retrospect: Maximizing Experienced Utility,” *Marketing Letters*, Vol. 8, No. 3, 1997, pp. 323-334 at p. 329. In another article, Dr. Simonson commented on recall and the fluency concept: “[p]reference fluency may also affect preference stability through its influence on the reconstruction of memories of prior choices and inferences drawn from those memories.” Nathan Novemsky, Ravi Dhar, Norbert Schwarz, and Itamar Simonson, “Preference Fluency in Choice,” *Journal of Marketing Research*, Vol. 44, No. 3, 2007, pp. 347-356 at p. 354.

³⁸ “[L]onger reference periods increase not only the amount of time over which respondents must remember events but also the total number of events they must recall, and both variables are likely to reduce accuracy.”

granular topics or the mentioning of a remarkable event can have a positive influence on the precision of recall. Dr. Simonson did not use these or any other techniques to attempt to stimulate precise recall. The answers provided by the 18 respondents that reported experience in the early years of Android are therefore unlikely the product of precise recall due to the lengthy amount of time between the events and the survey.

B. Dr. Simonson's Survey Does Not Create the Appropriate Historical Context

26. Dr. Simonson's survey does not attempt to create the necessary historical context that affected developers' decisions during the emergence of the Android platform. Without this specific historical context, respondents are prone to answering survey questions based on their experiences, beliefs, and opinions as they pertain to the current marketplace – a marketplace that significantly differs from that in 2007 when Android was released.⁴⁰
27. Dr. Simonson states that his survey “tests” Oracle's allegation that “a primary driver of developers' decisions to develop Android applications, and the resulting popularity of Android, was the developers' prior familiarity with the Java programming language, including the Accused APIs.”⁴¹ Oracle's experts Dr. Adam Jaffe and Mr. James Malackowski have documented in their reports the extent to which developers faced unique circumstances at the time of Android's release. These experts describe the extent to which developers' familiarity with Java and the at-issue Java API packages strongly influenced

Roger Tourangeau, Lance J. Rips, and Kenneth Rasinski, *The Psychology of Survey Response*, Cambridge University Press, 2000, p. 86, references omitted.

³⁹ Other survey experts have established approaches for improving respondents' ability to accurately recall past experiences or thoughts when they are asked recall questions. As Drs. Krosnick and Presser describe in the *Handbook of Survey Research*, “[a]ccuracy [of recall] may also be increased by reducing the burden of the task respondents are asked to perform. [...] [S]everal methods may be used to assist the respondent in carrying out [the task].” Jon A. Krosnick and Stanley Presser, “Question and Questionnaire Design,” in *Handbook of Survey Research*, Second Edition, eds. Peter V. Marsden and James D. Wright, Emerald Group Publishing Limited, 2010, pp. 263-313 at pp. 289-290.

⁴⁰ Erick Schonfeld, “Breaking: Google Announces Android and Open Handset Alliance,” *TechCrunch*, November 5, 2007, <http://techcrunch.com/2007/11/05/breaking-google-announces-android-and-open-handset-alliance/>, accessed February 23, 2016; Dean Takahashi, “Google Releases Details on Android Market Launch,” *VentureBeat*, October 22, 2008, <http://venturebeat.com/2008/10/22/google-releases-details-on-android-market-launch/>, accessed February 15, 2016.

⁴¹ Simonson Report, ¶ 14.

their decisions to develop Android applications when the platform first launched. Mr. Malackowski also explains that developers' prior familiarity with Java enabled Google to rapidly achieve a critical mass of applications that drove the success of Android.^{42,43}

28. In particular, Dr. Simonson's survey asks respondents to evaluate factors that would affect their decision today to develop for a hypothetical mobile platform that was introduced recently. More specifically, Dr. Simonson's questions use the phrasing "introduced two years ago," "introduced a couple of years ago," or "has been around for a few years" to describe this hypothetical platform and ask respondents to consider decisions "today."⁴⁴ I note that Questions Q1a and Q1b specifically ask respondents to consider "[w]hat factors or considerations *will* influence your decision *today* whether or not to develop applications for this platform first introduced *two years ago*?"⁴⁵ The inclusion of references to the future, the present and the past in the same sentence could be confusing to respondents, who might be uncertain about the time period in which the relevant decision would take place. Based on his survey results, Dr. Simonson forms conclusions about the opinions, decision-making factors, or choices that affected developers up to eight years prior to the launch of Dr. Simonson's survey.
29. According to several commentators, both the Android platform and the market for smart mobile devices have undergone substantial shifts since the time of Android's launch that would be expected to affect developer choices and the motivations for those choices.⁴⁶ In 2007, foreseeing the importance of mobile computing, Google expressed that a primary goal

⁴² Malackowski Report, ¶¶ 223-244, and ¶¶ 251-259. An internal Google document described Android's "Value circle" by stating "Applications aren't just important for direct monetization – we need them to make the ecosystem work." Jaffe Report, ¶ 157, citing GOOGLE-22-00060007, at 039.

⁴³ Oracle's expert Dr. Jaffe also explains, "[t]he value of the mobile applications platform increases as the number of users increases – specifically the value to app developers, advertisers, OEMS, and carriers. The value of the platform also increases as more developers choose to create apps for a mobile applications platform." Jaffe Report, ¶ 102.

⁴⁴ See, e.g., Simonson Report, Exhibit E2, Questions Q1a, Q2a, Q4a, and Q7-1a.

⁴⁵ Simonson Report, Exhibit E2, p. 3, emphases added.

⁴⁶ See Jaffe Report, Figure 32, citing TX 1061.

was to attract a large user base to their smartphone platform as quickly as possible.^{47,48} For example, Andy Rubin, co-founder and CEO of Android and Google's Senior Vice President of Mobile and Digital Content, noted in deposition that "my job...was to just do everything that I possibly could to get my solution to the market in the shortest time possible."⁴⁹ Mr. Rubin also explained that Java was part of Google's Android strategy and recognized that using Java allowed for less upfront time investment on the part of developers:

"I didn't want to go invent some new thing that developers had to go to school to learn how to program...So Java as the programming language is really, really important to our solution because developers can just jump on it without learning something new and, in fact, going back to college. So I think that given the importance of ecosystems in the era of smart phones and app stores and everything else, that the Java programming language was really, really important to us."⁵⁰

30. Today's mobile device marketplace differs substantially from the market at the time of Android's release. The competition has matured significantly, with iOS and Android capturing more than 95 percent of total smartphone unit shipments in 2015.^{51,52} This reflects

⁴⁷ Google's then CEO Eric Schmidt noted in 2007, "[t]he biggest growth areas are clearly within the mobile space." Steve Marcus, "Mobile Phones Represent Next Frontier for Search," *Reuters*, April 20, 2007, <http://www.reuters.com/article/us-mobile-search-idUSN2025896920070420>, accessed February 18, 2016. See also Google Inc., Form 10-K, 2006, p. 28.

⁴⁸ Andy Rubin, Android's co-founder and CEO, recognized the competitive atmosphere and how it generated pressure to minimize time to market, explaining that "you have a window of opportunity in smartphones. I had competitors all over the places." Deposition of Andy Rubin, July 27, 2011 (Individual), at 180:1-6. See also Jaffe Report, Exhibit 21.

⁴⁹ Deposition of Andy Rubin, July 27, 2011 (Individual), at 180:9-12. See also GOOGLE-01-00075935.

⁵⁰ Deposition of Andy Rubin, July 27, 2011 (Individual), at 122:16-123:2, discussing exhibit PX310. This exhibit is an email from Andy Rubin to Google's co-founders and others which notes, "[w]hen Android first arrived I did a GPS that explained the importance of Java in our solution." See also TX 0024, p. 45, and TX 0013.

⁵¹ "Smartphone OS Market Share, 2015 Q2," *IDC*, August 2015, <http://www.idc.com/prodserv/smartphone-os-market-share.jsp>, accessed February 18, 2016.

⁵² Dr. Jaffe explains that "[t]he mobile platform market can sustain relatively few profitable platforms. Stronger network [] effects make smaller networks uncompetitive, reducing the number of platforms...there will only be a few platforms that can achieve the necessary scale. In this type of environment it becomes very important to enter the market early and become a dominant player." Jaffe Report, ¶ 202.

a dramatic increase in Android's share of the mobile market.⁵³ By as early as 2010, Google had achieved a critical mass of apps in its Android app store.^{54,55} Now known as Google Play, the Android app store has "provided developers with a market and a pool of customers that they would not have had access to,"⁵⁶ addressing "developers' need for more users and a bigger market."⁵⁷ As summarized in a 2015 Trefis report, "[d]evelopers are building thriving businesses in this platform, and in February, Google announced that over the past 12 months (FY 2014), it paid more than \$7 billion to developers."⁵⁸

31. In fact, Dr. Simonson seems to have ignored contemporaneous documentary evidence indicating that Google and its personnel were aware of and considered the motivations and preferences of developers in the relevant time period, and used Java with these motivations and preferences in mind. Google documents show that Google stated Java was important to developers and that it needed to use Java to attract developers. For example, an internal presentation from July 26, 2005 listed reasons for using Java including that it provided an "[e]legant tools story," a "[s]afe sandbox for 3rd party developers," and an "[e]xisting pool of developers."⁵⁹ In a January 2006 email, a Google employee listed the reasons to "shift to a primarily Java API" as including that "Java is more accessible than C++. There are more Java programmers. There is more standardization in tools and libraries. Debugging is much simpler (especially for people who are not total rockstars – perhaps a lot of casual

⁵³ "Android's annual worldwide market share increased from 3.9 percent in 2009 to 82.7 percent in 2015." Malackowski Report, ¶ 102 and Exhibit 11; Jaffe Report, ¶¶ 247-48 and Figure 44.

⁵⁴ Malackowski Report, ¶ 258, quoting Google's 2010 statement: "[w]e created the first app store for Android and it got critical mass quickly. The store now has value and partners want access to it because of the number of apps available."

⁵⁵ "Today, Apple's App Store and Google's Play Store are popular and well-known app marketplaces." Jaffe Report, ¶ 118.

⁵⁶ Jaffe Report, ¶ 100. "Google Play is also connecting developers and content providers with more than 1 billion people on Android devices around the world." Jaffe Report, ¶ 242, citing a 2015 Trefis report.

⁵⁷ Jaffe Report, ¶ 202.

⁵⁸ Jaffe Report, ¶ 242, citing a 2015 Trefis report.

⁵⁹ TX 0001, p. 8.

developers, etc.)” and because “[w]e can safely provide a modern object oriented api to third party developers”⁶⁰

32. Google also advised potential partners that it was using Java to “harness developers,” noting that there are “6M Java developers worldwide” and that “[t]ools and documentation exist to support app development without the need to create a large developer services organization.”⁶¹ Accordingly, Google’s “strategy” was to “[l]everage Java for its existing base of developers.”⁶² Google’s use of Java to attract developers was confirmed by the testimony of Andrew Rubin cited above.
33. Google presentations further show that Google advertised that it was using the Java API packages to sell Android. In particular, Google referenced its use of “Java API” in its architecture diagrams and noted that Android used a “[p]owerful, simple Java Application Framework” with “[s]tandard Java class libraries.”⁶³ The Functional Requirements Document provided to OEMs also advertised use of the Java API packages.⁶⁴
34. Dr. Simonson’s approach does not attempt to account for the vastly different market environments in the early years of Android and now, as articulated by Google’s own executives and as demonstrated by their business decisions. He also does not account for different impacts that these environments had on developers’ decision-making factors. His conclusions are primarily based upon the recent market instead of the market faced by developers in 2007 to 2009. By not accounting for this discrepancy in his survey design, Dr. Simonson’s survey yields results that are not valid for assessing the factors relevant to developers’ decision making in the early years of Android.

⁶⁰ TX 0013, p. 2.

⁶¹ TX 0024, p. 45, (Presentation to CMCC); TX 0158, p. 10, (Presentation to China Mobile); GOOGLE-22-00147889-970 at 929 (Presentation to T-Mobile).

⁶² *Id.*

⁶³ GOOGLE-24-00010460-538 at 508, 514, 525 (2007 Presentation to Sprint); GOOGLE-24-00015413-15464 at 438, 444, 455 (2007 Presentation to Orange); GOOGLE-24-00019557-613 at 583, 589, 600 (2007 Presentation to Vodafone).

⁶⁴ GOOGLE-22-00051822-1893 at 1855-1856 (Functional Requirements Document provided to OEMS).

35. Dr. Simonson's questions also yield potentially misleading results by leaving it to respondents to answer questions based on current conditions; i.e., a situation where platforms such as Apple and Android are already popular, as opposed to the market faced by developers when Android was first released. For example, his initial questions on factors that influence development decisions (Questions Q1a, Q2a, Q4a) require that the platform have been on the market for two years or "around for a few years." These descriptions may put respondents into the frame of 2013 or 2014, and not into the frame of the early years of Android. Similarly, Dr. Simonson's "ranking" questions (Q9-1, Q9-2) create a risk of skewed results by not specifying a scenario that realistically depicts the context from the early years of Android, but rather defining the question context as "general" and based on unspecified "prior expectations."⁶⁵
36. Dr. Simonson states "...[D]evelopers do indeed base their decisions on expected demand and economic considerations (e.g., ROI) rather than on whether developing applications requires learning a new language." He rationalizes this finding by pointing out that respondents' purported willingness to learn the Objective-C language or Apple's new Swift language to develop iOS applications demonstrates that the need to learn a new programming language is not a significant factor in a developer's decision to develop applications. However, Dr. Simonson ignores that developers' willingness to learn programming languages such as Swift is influenced by today's context, and not the context in the early years of Android.
37. Because Dr. Simonson's survey design fails to address recall issues and fails to provide respondents with the appropriate context in which to understand and consider the decisions being asked about, it is not surprising that Dr. Simonson's findings are inconsistent with Google's documents and internal assessments. Simply put, at best he has elicited information from respondents about their current decision-making which would not be relevant to their decision making in 2007 to 2009. In fact, Dr. Simonson has previously counseled against relying on survey evidence when it is inconsistent with contemporaneous business documents: "When an expert relies on survey evidence that presumably disproves

⁶⁵ Simonson Report, Exhibit E2, p. 8.

A. The Simonson Survey Lacks a Control Question or a Control Group

44. Dr. Simonson's survey should have employed a control question or control group to potentially net out noise and/or to make causal inferences about developers' actual drivers to program for a mobile device platform. Control questions and control groups substantially reduce the possibility that survey results are based on answers that are influenced by preconceived notions or misinformation from irrelevant sources.⁷⁴ In addition, control groups can isolate drivers of behavior and therefore establish that these drivers have causal impact.⁷⁵
45. A *control question* could be formulated similarly to the question assessing the measurement of interest but would address a slightly different issue. Because such a question would be neutral to the topic of interest, it can be used to net out noise – that is preconceived notions or misinformation from irrelevant sources – from the actual measurement of interest. For example, control questions can help to account for respondents' affinity to confirm an issue (so-called yea-saying bias).
46. In the same vein, a *control group* experiences a stimulus that is neutral to the issue of interest, while the stimulus group experiences a stimulus that represents the issue of interest.⁷⁶ The measurement difference between the stimulus and control group would then be the measure of interest. In a carefully designed survey environment, this measured difference can be interpreted as the causal outcome of the stimulus' impact on respondents.
47. Without a control question or control group, Dr. Simonson cannot determine the share of responses to any given question that are due to certain factors. Dr. Simonson's omission of control questions or control group is notable because his published survey research regularly includes test and control conditions that enable him to isolate and examine the factor of

⁷⁴ Diamond, pp. 397-401.

⁷⁵ Diamond, p. 398.

⁷⁶ Consider the stimulus and control group setup to be similar to placebo testing for a new drug.

interest.⁷⁷ Dr. Simonson also notes in his rebuttal report in the *Enterprise v. U-Haul* matter, “[w]ith few exceptions, surveys conducted in the context of litigation (and other contexts) must include a Control in order to rule out alternative explanations for the results (systematic biases or random ‘noise’).”⁷⁸

B. The Simonson Survey Does Not Examine Developers’ “Tradeoff Between Meeting Demand and the Cost of Learning a Programming Language”

48. Dr. Simonson’s survey design does not provide an “understanding [of] developers’ behavior [...] pertaining to the tradeoff between meeting demand and the cost of learning a programming language,” despite this stated objective.⁷⁹ In particular, respondents’ tradeoffs of “factors and considerations” relevant to a mobile platform might differ based on the choice context. Choice context is an important aspect of survey design as different context can lead to vastly different answers.
49. To take an example as illustration, if one asked consumers about the factors they considered when purchasing their last car, very few would mention the fact that the car had an engine and wheels. That is not because the presence of engines and wheels are unimportant to consumers who purchase cars, but rather because consumers assume that all cars have engines and wheels and therefore do not need to consider which cars have engines and wheels and which do not. However, if consumers faced cars without wheels or engines, they would probably start taking these features into consideration. In other words, the consideration of “factors” depends not only on the importance of preferences, but also on the choice context and the options available to decision makers.

⁷⁷ See, e.g., Leilei Gao, Yanliu Huang, and Itamar Simonson, “The Influence of Initial Possession Level on Consumers’ Adoption of a Collection Goal: A Tipping Point Effect,” *Journal of Marketing*, Vol. 78, No. 6, 2014, pp. 143-156; Stephen M. Nowlis and Itamar Simonson, “The Effect of New Product Features on Brand Choice,” *Journal of Marketing Research*, Vol. 33, No. 1, 1996, pp. 36-46; and Aner Sela, Itamar Simonson, and Ran Kivetz, “Beating the Market: The Allure of Unintended Value,” *Journal of Marketing Research*, Vol. 50, No. 6, 2013, pp. 691-705.

⁷⁸ Expert Report of Itamar Simonson, Ph.D., *Enterprise Rent-A-Car Company v. U-Haul International, Inc. et al*, Case No. 4:03-cv-01480-CAS, United States District Court, Eastern District of Missouri, August 28, 2006, ¶ 53.

⁷⁹ Simonson Report, ¶ 9.

interviewers that did not follow survey instructions. Dr. Simonson's interview script instructs the interviewer to record several of respondents' answers "verbatim."⁹⁶ Despite this instruction, some of the allegedly "verbatim" answers underlying his Exhibit I appear to be summary statements created by the interviewer. For example, for Question Q4a, the first response given by Respondent 100912 is recorded in the third person, as "He wants to know the release date of the operating system and is it going to be on google phones or open source or more like apple"^{97,98} Such a "translation" conducted by the interviewer renders it impossible to evaluate respondents' true answers.

62. *Dr. Simonson's final sample inappropriately includes pretest respondents:* Dr. Simonson's sampling approach ignores established survey protocols by including 23 pretest interviews in the final sample of 152, despite having changed the survey following the pretest. Rather than excluding these respondents from the final results, the Simonson survey included 15 percent of respondents who took a survey that is different from the final one. These 15 percent of respondents answered the survey under circumstances of a pretest, which usually lets the interviewer "moderate" the survey and instruct respondents to mention or discuss unclear language or other concerns.⁹⁹ This procedure violates established survey practice, as Ruel, Wagner, and Gillespie confirm: "[an] important problem that confronts researchers is contamination of the data as a result of including pretest and pilot test survey results in the final, full-scale study. Because modifications to the survey instrument may have taken place, the data collected in the pretest and pilot test of the surveys could be inaccurate or biased compared to the results of the full-scale study."¹⁰⁰ Dr. Simonson does not account for any

⁹⁶ Simonson Report, Exhibit E2, pp. 3-5.

⁹⁷ Simonson Report, Exhibit I.

⁹⁸ Additionally, several responses to Question Q1a (First Factor/Consideration) were recorded in third person: Respondent 100493, "Potential amount of users he can reach"; Respondent 100965, "Popularity or use of it and if OS is not operating then he would not like to." See Simonson Report, Exhibit I.

⁹⁹ Rather than performing any rigorous assessment of bias or inaccuracy, Simonson states that "[o]nly a couple of minor changes were made based on the pretest, so the 23 initial interviews were included in the final sample." Simonson Report, ¶ 22.

¹⁰⁰ Erin E. Ruel, William E. Wagner, and Brian J. Gillespie, *The Practice of Survey Research: Theory and Applications*, SAGE Publications, Inc., 2016, p. 117.

inaccuracies or biases that his inclusion of pretest interviews may have introduced, yielding a survey that is unfit for drawing meaningful conclusions about developers' beliefs.

63. *The Simonson survey is inconsistent in its use of two-sided questions:* While some of the questions in Dr. Simonson's survey are two-sided (e.g., Question QA2, "Do or don't you..."), others are not (e.g., Question QA3, "Are you the person who makes..."). Literature on survey design has established that the answers to similar two-sided and one-sided questions can be vastly different. Specifically, one-sided questions can lead respondents towards a specific answer rather than allowing them to be neutral with respect to the topic under investigation. Jacoby (2012) explains, "Consider the following question: 'Do any of these items come from the same company as the first item I showed you?' Aside from being a question that can be answered with a mere yes or no, because this question presents only the affirmative side of the issue, it is a leading question."¹⁰¹ Similarly, Dr. Simonson's survey design deviates from best practice by using one-sided questions that are likely to be leading.

The Simonson survey does not include checks for respondents' attention

64. Current state-of-the-art in survey design includes mechanisms for detecting respondents who fail to pay attention to the survey. For example, respondents may be screened out based on extreme response times, or based on answers to "attention check" questions (sometimes referred to as "red herring") questions.¹⁰² In particular, the fact that many respondents' answers to Dr. Simonson's "benchmark" question indicate that they "misinterpreted" the question raises broader concerns as to what extent his findings are valid.

¹⁰¹ Jacob Jacoby, "Are Closed-Ended Questions Leading Questions?" in *Trademark and Deceptive Advertising Surveys: Law, Science and Design*, eds. Shari S. Diamond and Jerre B. Swann, American Bar Association, 2012, pp. 261-284 at p. 275.

¹⁰² See, e.g., Daniel M. Oppenheimer, Tom Meyvis, and Nicolas Davidenko, "Instructional Manipulation Checks: Detecting Satisficing to Increase Statistical Power," *Journal of Experimental Social Psychology*, Vol. 45, No. 4, 2009, pp. 867-872; Jeff Miller and Jamie Baker-Prewitt, "Beyond 'Trapping' the Undesirable Panelist: The Use of Red Herrings to Reduce Satisficing," CASRO Panel Quality Conference, 2009.